marantz®

SUPER AUDIO CD PLAYER

SA-17S1

SA-17S1 Multi channel SACD Player

Delight in the unprecedented dynamic range and sonic purity of the superlative SA-17S1 Super Audio CD (SACD) player. With Direct Stream Digital technology and a sampling rate of 2.8224 MHz, it us unequalled in the world of SACD and CD players. Three high grade Crystal DACs, a copper-shielded differential HDAM, and low-noise, low-distortion filters help it deliver perfectly balanced multi-channel or stereo reproduction. The superior quality design, using exclusive high-grade components like a Super-Ring transformer and gold-plated output terminals, re-affirms the leading role Marantz plays in creating no-compromise audio experiences.

COMPACT disc DIGITAL AUDIO TEXT

CD-R/RW COMPATIBLE

COAX DIGITAL OUTPUT

OPT DIGITAL OUTPUT

SUPER AUDIO CD

HDAM

COPPER PLATED CHASSIS

COPPER SHIELDING

SUPER RING TRANSFORMER

because music matters

PREMIUM SERIES

Features:

- Multi-channel SACD playback
- 3 x Crystal CS4397 DAC
- Current Feedback HDAM for all 6 channels
- Super-Ring power transformer with separate windings for analogue and digital circuitry
- Zero-Impedance Matching Joint on output terminals
- Top grade audio components
- Copper plated chassis and system block shielding
- Hi-speed Current Feedback headphone amplifier
- Phantom centre

Benefits:

- Realistic sound reproduction using 5 loudspeakers and optional subwoofer
- Top-end multi system D/A converter incorporates DSD conversion as well as PCM conversion
- Achieving a more dynamic, accurate and detailed sound reproduction regardless the amount of channels
- Ultra low vibration and leakage flux keeps the signal sharp and minimises internal electro magnetic distortion
- Common grounding provides consistent output levels for all channels
- Ensures the renown premium Marantz sound reproduction
- To minimize electromagnetic interference, which can deteriorate the audio and video output quality
- For top quality personalized music enjoyment
- In case a center speaker is no option or very difficult to realise a high quality virtual centre can be created via a special circuitry unique to the SA-17S1

Technological glossary:

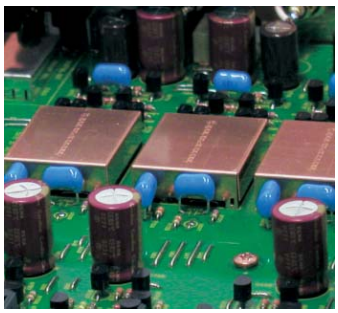
Dedication to the music
In line with the globally raved SA-1 Marantz presents its latest new multi-channel SACD player in the 17 series. The Marantz SA-17S1 Super Audio CD Player brings the highest quality multi channel audio to the audiophiles. It´s our answers to concerns of audiophiles regarding functional integration at the costs of audio quality. This player utilized all the benefits of the SACD format in stereo and multi channel, of course allowing also standard CDs to be played back at reference quality. Constructed according to highest standards with a copper shielded chassis, high grade power supply and audiophile components, to preserve the signal integrity and the original sound stage. The SA-17S1 expresses the Marantz dedication to the purest reproduction of musical emotion!

Multi-channel SACD playback
Enjoy the fabulous world of Multi channel audio! Finally you can have an incredible live-experience in your home as it was in reality. Not only the total ambiance is reproduced, but also the natural 'sound' of the instruments is being preserved. SACD is based upon the DSD conversion principle that links excellent specifications like a frequency range of 100 kHz and a dynamic range of 120 dB, to superb sound quality. It adds essential resolution and detail to the Multi channel audio setup, necessary for accurate corrolation between front and rear channels. This combination of top-end audio performance and Multi-channel sound will give you a sensation that will totally change the way you experience music.

Super DAC, CS4397
The CS4397, 'Super DAC', from Cirrus Logic is developed to provide high quality audio output for new standards such as SACD. It incorporates Cirrus Logic's mixed-signal technologies, including Switched Capacitor techniques, Multi-bit Delta Sigma Modulator architecture, and Dynamic Element Matching.
All this results in an unsurpassed dynamic range and detailed resolution that are key to a striking SACD performance.

Zero-Impedance Matching Joint
In the final stage of the audio circuitry, the near to Zero-Impedance Matching Joint ensures the exact same ground potential for all channels. This improves the drivability of the next stage in your audio chain. The muting circuitry does not comprise of transistors but is designed with relay based switching, which contribute also to lower output impedance.

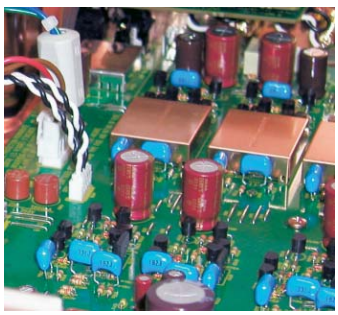
HDAM
Audio devices are usually equipped with Op-Amps (operational amplifiers) for which Integrated Circuit (IC) are commonly used. Unfortunately these IC's do not match the very high requirements of Marantz. Marantz developed it's own discrete circuit boards to replace the IC's. These HDAM's consists of discrete surface mount components with short mirror image L/R signal paths. Those devices are doing exactly the same thing as the Op-Amps, but outperform the regular IC Op-amps dramatically in terms of the Slew Rate, resulting in a much more dynamic, accurate and detailed sound. There are no IC OP-amps used at all in the SA-17S1´s analogue signal path. All six channels are completely identical in terms of components and circuit layout. This is extremely important to be able to enjoy a breathtaking sound stage on multichannel Super Audio CD material.



Super-ring transformer
A Super-Ring transformer has the same advantage as a toroidal transformer; such as high efficiency, stability, and speed. In addition to that the Super Ring transformer outperform the

toroidal transformer on certain aspects. Thanks to its round shape of the core, the super ring transformer's electro-magnetic radiation and mechanical vibration are extremely low. On the SA-17S1 the super-ring transformer is applied for the audio circuitry dealing with both analogue and digital stages. The windings inside the copper shielded transformer are split and separated for the digital circuitry and for the analogue audio circuitry. That latter also receives its power through a separated rectifier circuit that is placed in separated area to prevent any interference.

Customised components
Every Marantz product is designed with a fine ear and eye for details. The designers have to know the characteristics of every component. On paper the component might look excellent but



the result may fall short of the combined design expectations. Therefore Marantz collects vast amounts of information upon specifics component performance capabilities. Marantz selects the appropriate components for the specific design application. The sonic result is then critically acclaimed by international reviewers. In other cases it's simply not possible to use standard components that meet the high Marantz standards. These components will then be specially made for Marantz only in co-operation with the Marantz engineers. Examples in the SA-17S1 are the stress-free electrolytic capacitors and the shot-key diode. These are used in the rectifier circuit. High-grade electrolytic and film capacitors are used in the audio circuitry. All the regulators are covered with a copper plated shielding that prevents vibrations and radiation of electro-magnetic noise.

Phantom Centre Mode
It is not always possible to install a Centre channel speaker. Therefore the SA-17S1 facilitates a unique Phantom Centre Mode. Unlike a digitally down-mixed phantom centre that is mostly facilitated by DSP surround machine, the SA-17´s analogue mixing circuitry of the phantom centre won´t introduce quantisation noise.

Dedicated Headphone Amplifier
For the headphone listeners we have paid extra attention to the headphone circuitry to ensure that the pure emotion of SACD is passed on. A dedicated amplifier is developed with a high speed Current Feedback circuitry, constructed of discrete components only, including a high grade potentiometer for the volume control.

Copper plated chassis
The SA-17S1 has a fully copper plated chassis for minimal disturbance from electro-magnetic radiation.

Bypacked Accessories

- User manual
- Power cable
- Remote Control
- Batteries
- 3 Pair audio cinch cable
- D.Bus cable

RC-17SAS1

marantz®

SA-17S1

Preliminary Specifications

FEATURES

Disc Capacity	1
Playback Formats	CD,CD-R/RW, SACD (2ch/Multi-ch.)
CD-Text	•
Copper Plated Chassis	•
High Grade Audio Components	•
Costomised Components	•
Power Transformer	Super-Ring
Copper grounding	•
Double Layer Bottom Plate	•
HDAM	• (copper)
CCNE	-
Selectable Filters for SACD	•
Display Dimmer	-
Variable Analogue Output	-

PLAYBACK

Program Play	30
Auto Music Scan (AMS)	•
Repeat: track/all/A-B	•/•/•
Random Play	•
Index Search	-
Peak Search	-
Edit Recording	-
Sync Recording	-
Pitch Control	-

INPUTS/OUTPUTS

Analogue Out (Cinch)	6ch
Balanced Out	-
Digital Optical Out	1
Digital Coaxial Out	1
Gold plated Cinch	•
D-Bus In/Out	•
Headphone out	•
Headphone Volume Control	•

SPECIFICATIONS

Mechanism	SONY OPU
Decoder	CXD2752
D/A Conversion	Multi-bit, Delta-Sigma
DAC IC	CS4397
Digital Filter	CS4397
Noise Shaper	CS4397
Low Pass Filter stage	HDAM
Output Buffer	HDAM
SACD AUDIOΔ	
Frequency Response (Cust.)	2Hz-50kHz (+0, -3dB)
Dynamic Range	114dB
Signal to Noise Ratio	114dB
Total Harmonic Distortion	0,000008
Channel Separation	100dB
CDDA AUDIOΔ	
Frequency Response	2Hz-20kHz
Dynamic Range	100dB
Signal to Noise Ratio	114dB
Total Harmonic Distortion	0,00002
Channel Separation	100dB

GENERAL

Color	Gold
Metal Front Panel	•
Remote Control	RC-17SAS1
Power Consumption	24W
Detachable Power Cable	•
Maximum Dimensions (W x D x H)	458 x 110 x 394 mm
Weight	11.5 kg

Design and specifications are subject to change by Marantz without notice

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